

DONDA STEM PLAYER

Community Manual

By: Gare



Manual Last Updated: Dec. 17, 2021

Latest Stem Player Version: 1.0.1636

Join the Discord for Community Support and Discussion:

<https://discord.gg/stemplayer>

The Official Manual

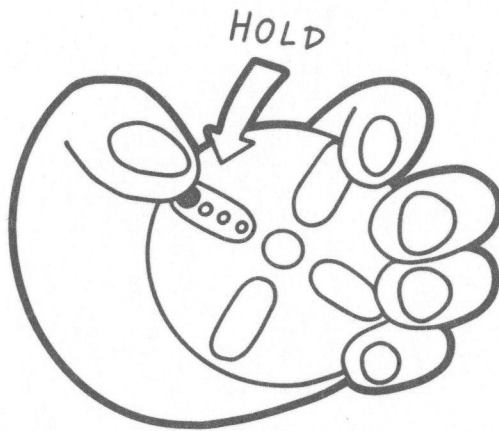
(Scans from VoxelJar)



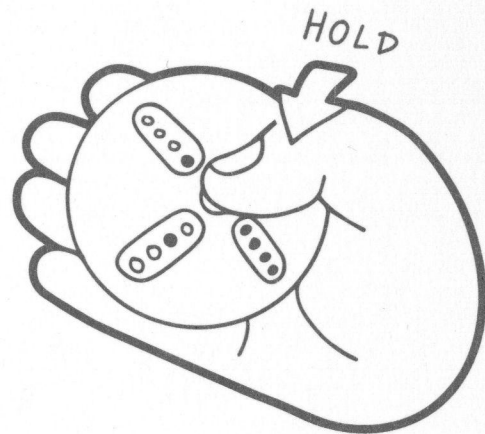
PLAY / PAUSE



CHANGE STEM VOLUME



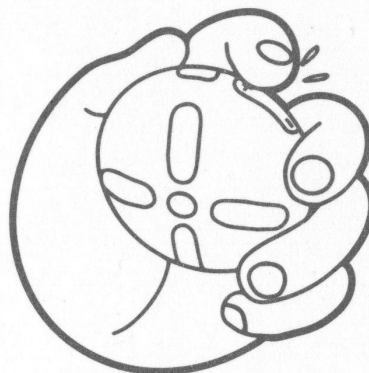
ISOLATE STEM



INSTANT LOOP



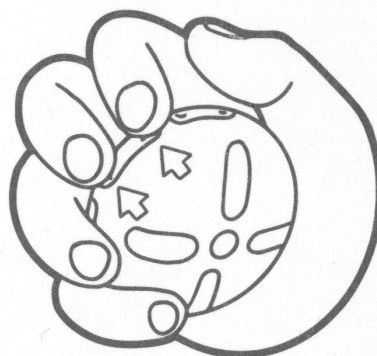
NEXT TRACK



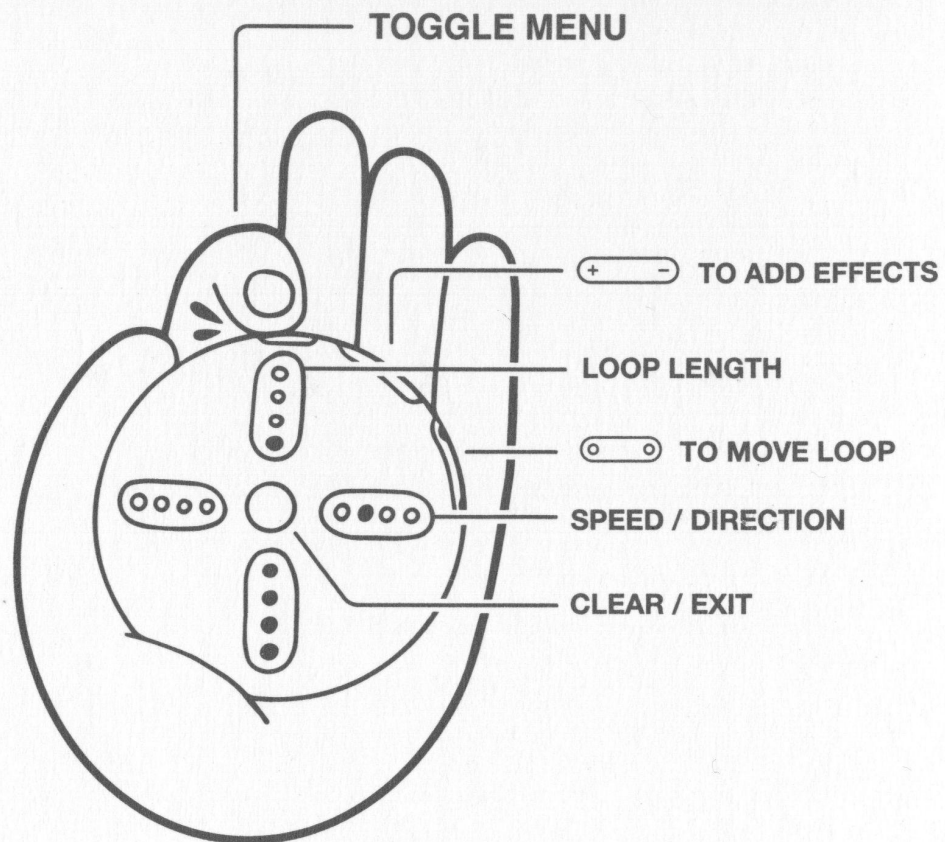
VOLUME



LOCK / UNLOCK SLIDERS



PAIR BLUETOOTH



HOLD  BUTTON TO RECORD
(SAVES IN FINAL TRACK)

VISIT STEMPLAYER.COM
TO MANAGE TRACKS

YZY.TECH × KANO COMPUTING

Basic Player Functions

The Stem Player has 6 buttons (Center, Power / Toggle, + and -, and Prev and Next) and 4 sliders. When using the Stem Player, there are 3 menus. The main / stem menu, the loop / speed menu and the effects menu. Below are basic overviews of each menu.

Main / Stem Menu

The main menu is accessed when you first power on the device and can be returned to at any point with a quick press of the power button (once if in the loop menu, twice in the effects menu). On this screen you can control the volume of each stem, control the main volume, skip tracks and control basic playback of the current track.

On the preloaded songs and any custom songs using the AI, the sliders follow this orientation (going clockwise, starting from under the power button) vocals, other (ex. piano, synths etc.), drums, and bass. Custom 4 track stems may not follow this order, but can be fixed using Disk Mode (see the dedicated section on that to learn more).

The sliders are pretty simple here. Slide one closer to the center to lower the volume of a particular stem, and slide it away to raise the volume.

To quickly isolate any particular stem you can press and hold the outside edge of the slider. You can isolate multiple stems this way.

To change the volume of the output of the player, use the + and - buttons.

You can use the prev / next buttons to either cycle tracks, fast forward / rewind songs, or cycle albums. A quick press of either button will go to the next or previous song, pressing and holding one of the buttons will either fast forward or rewind the current song, and pressing and holding both buttons will jump to the next album (stock order is bonus songs, Donda, custom songs, recordings) If applicable, skipping songs will clear any speed and effects currently active. When fast forwarding / rewinding while the song is playing it will skip through (by default) 1 second intervals. However when fast forwarding / rewinding while paused, it will play the song normally at 1.25 speed until the button is released.

Pressing the center button will pause the current playback (if applicable, one press will clear any speed, loop and effects currently active and a second press will pause).

By pressing and holding the power and center button while a song is playing, you can lock the sliders and turn off the lights. This can prevent accidental adjustments. All the physical buttons still work and you can do all of the functions mentioned above. To unlock, simply quick press the power button.

Finally, the last function is summoning a quick loop. By holding the center button while a song is playing, it will loop a small section. This will clear any speed adjustments you made. If you like the loop, you can lock it in by pressing the power button, this will then drop you in the loop / speed menu. If you decide you don't like the loop, simply let go of the center button. Not locking in the loop will clear any effects applied.

Loop / Speed Menu

The loop / speed menu can be accessed with a quick press of the power button on the main menu. On this screen you can control loops and playback speed of the song. In this menu the four sliders will be treated as two big connected sliders (vertical and horizontal with the power button at the top).

The horizontal slider controls speed playback. The stem player has 4 playback speeds (by default these are 50%, 100%, 115% and 125%). The right hand side of the horizontal slider lets you select these speeds while playing the song forwards (the outer light is the fastest speed and the one closest in is the slowest speed. The left hand side does the same thing except for playing the song backwards.

The vertical slider controls the loop. The slider works from bottom to top and loops a set number of bars / measures for each LED lit. 1 light lit is a loop of 0.25 bars, 2 is 0.5 bars, 3 is 1 bar, 4 is 2 bars, 5 is 4 bars, 6 is 8 bars, 7 is 16 bars. If all 8 are lit, there is currently no active loop.

The Prev and Next buttons can be used to nudge a loop forwards and backwards. This can be used to help make the loop sound more smooth.

The center button will clear all active loops and speed adjustments. If the song is playing at normal speed with no loops active, it will just take you back to the main menu.

EFFECTS MENU SECTION WILL BE ADDED SOON

Other Controls

Besides the menu specific functions, there are a couple of functions that can be universally accessed on all three of the menus. These are bluetooth pairing and the record function.

Bluetooth pairing allows you to connect your Stem Player to most bluetooth speakers or headphones. To do this, first put your bluetooth speaker into pairing mode (refer to its manual or google to see how to do this) and then on the Stem Player, press and hold the + and - buttons to start pairing. The sliders should start lighting up blue. When pairing is complete, you will see one light flow out from the center of all four sliders. To disconnect (or reconnect with the last paired device) quickly press the + and - buttons.

Recording allows you to record mixes you do live and saves them onto the Stem Player. By default the recording time is 60 seconds. You can record up to four recordings, and any additional recordings you try to do will overwrite previous ones without warning. These recordings are then dumped onto a special track at the end of your stem player where each recording is given a slider. By default, your most recent recording will be the only one with volume when you go to this track but you can listen to the other ones (or even play multiple at once) by using the sliders. For information on how to safely get your recordings off the Stem Player and delete them, see the Managing Songs section.

Uploading and Updating Songs

A SUBSTANTIAL UPDATE HAS HIT THE WEBSITE SO ALL SECTIONS DETAILING THE WEBSITE MAY BE INCORRECT. THE GUIDE WILL BE UPDATED SOON.

To upload songs, you need to go to stemplayer.com in either Google Chrome, Microsoft Edge or any other Chrome based browser on your computer (uploading does not work on Firefox or Safari). Once on the website, connect your Stem Player and click the Upload button and you should be in the WebUI. **Note that the actual Stem Player itself can only playback WAV files so all other file formats are converted into WAV.**

LINK OR FILE

[UPLOAD]

From here, you can add songs a few ways. You can either use the AI by either clicking the Link button and input a Youtube link or you can upload a single sound file (supported formats are .AIFF .AIF .FLAC .M4A .MP3 .WAV .WAVE .AAC .ALAC and .MP4).

ENTER LINK

[UPLOAD]

If you have proper 4-track Stems you can upload those by selecting all four files when uploading. When uploading, if you want the sliders to match the Donda Stems, rename them to 1-4 (1 being other, 2 being vocals, 3 being bass, and 4 being drums) and then select all of the files **in a separate file explorer window**. Then click and drag all four stems to the uploader window **from the 2 file**. This should place the stems on the proper sliders. **TRACK.txt files cannot be uploaded to the Stem Player from the WebUI. See the disk mode section on how to important any TRACK.txt files that came with combined Stem Sets.**

FOUR FILES SELECTED

[UPLOAD]

When an update is available for either the pre-loaded music or the firmware, an update button will appear under the normal upload button. This will automatically update the firmware to the latest version and grab any updated Donda Stems. You cannot update your own stems, they have to be deleted and re-added.

LINK OR FILE

[UPLOAD]

[UPDATE]

Hidden Debug Menu

Hidden on the upload page is a debug menu. To access it, you need to double click the bottom right corner of the upload page. This will give you access to a few additional options. These are Manage, Factory Reset and info for the OS version, Storage Usage, Battery Life, and Serial Number (not pictured)

[MANAGE]
[FACTORY RESET]
OS 1.0.1593
STORAGE 65%
BATTERY 98%

Factory Reset will completely wipe your device and re-download the latest versions of everything that came preloaded on the Stem Player. **WARNING: THIS WILL WIPE ANY CUSTOM SONGS LOADED ON THE STEM PLAYER. USING THIS OPTION IS GENERALLY NOT RECOMMENDED. IF YOU DO DECIDE TO USE THIS OPTION, PLEASE ENSURE YOU HAVE A VERY STABLE INTERNET CONNECTION WITH DECENT SPEEDS AND IF YOU ARE ON A LAPTOP, MAKE SURE IT IS PLUGGED IN.**

WARNING THIS WILL DELETE ALL TRACKS AND RECORDINGS FROM YOUR STEM PLAYER AND RE-UPLOAD ALL ORIGINAL CONTENT.

THIS WILL TAKE OVER 1 HOUR AND YOUR STEM PLAYER MUST NOT BE UNPLUGGED OR TURNED OFF DURING THIS PROCESS.

[CONTINUE]

[CANCEL]

Managing Songs

You can get to the Manage screen by either using the debug menu mentioned above or when your player is almost filled, a warning will be on the upload screen giving you access to it. From here you will be granted a list of the custom songs on the Stem Player from where you can choose what songs to delete. Song names are based on either the file or link you used to add it to the Stem Player.

STRONGER [DELETE]

ALL STAR [DELETE]

DYE [DELETE]

LOVE LOCKDOWN [DELETE]

PHOTOGRAPH [DELETE]

At the bottom of the songs list will be a listing labeled Recordings. This is how you can download your recordings you made on the Stem Player and delete them. Downloading recordings will transcode them to MP3 files. Files will be saved one at a time and listed as Recording #.mp3

RECORDINGS [DOWNLOAD] [DELETE]

Disk Mode

Disk mode allows your Stem Player to show up in the file system like any other removable storage (ex SD Card, USB Flash Drive, etc). To access it, power off the stem player and power it back on while holding the center button in. **WARNING: IT IS RECOMMENDED TO NOT DELETE ANYTHING USING DISK MODE UNLESS YOU KNOW EXACTLY WHAT YOU ARE DOING. FOR CUSTOM SONGS, USE THE METHODS MENTIONED ABOVE AND FOR THE PRELOADED SONGS, THERE IS A GUIDE AFTER THIS SECTION. BACKUP ANY FILE YOU PLAN TO MODIFY BEFORE MODIFYING IT!**

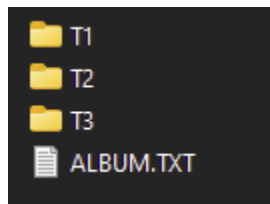
Name	Date modified
Folder A1	9/14/2021 9:24 PM
Folder A2	9/14/2021 9:25 PM
Folder A3	6/8/2021 8:45 AM
Folder RECORD	6/8/2021 8:45 AM
config.txt	10/27/2021 8:31 PM
PRODDATA.DAT	6/8/2021 8:45 AM

On the root of the Stem Player are folders for the songs (currently on stock A1 is the 3 bonus songs, A2 is DONDA, and A3 is custom songs you have added), config.txt and PRODDATA.DAT. Config.txt allows you to customize certain settings with the Stem Player.

```
{
  "name": "Stem Player Configuration",
  "parameters":
  {
    "SeekJumpPeriod_mSecs":1000,
    "SeekBuffersToPlay":4,
    "IsolationRampPeriod_mSecs":50,
    "IsolationHitBoxSize":10,
    "MinStemBackgroundLevel":130,
    "MinVolumeLevel_dB":-30,
    "HeadphoneMaxLevel_dB":-2,
    "HeadphoneBTLimit":5,
    "HeadphoneWiredLimit":3,
    "Fast2play":1.25,
    "Fast1play":1.15,
    "Slow1play":0.5,
    "RecordPeriod_secs":60
  }
}
```

Currently, most of these values have been untested. Fastplay and slowplay allow you to change the speed options (ex 1.25 would playback the song at 125%). RecordPeriod_secs allows you to change the max length of recordings the stem player can do.

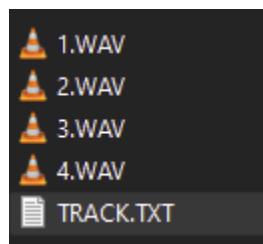
Inside the album folders are subfolders listed as T# for each song and an ALBUM.txt.



In the Album.txt, it stores metadata like Album Name, Artist Name (both song and album, separately), and Song Names. You can edit this in the custom songs folder to give the songs more useful names in the Manager in the WebUI.

```
{
  "id": "A2",
  "artist": "Kanye West",
  "title": "Donda",
  "version": "2",
  "tracks": [
    {
      "id": "T1",
      "artist": "Kanye West",
      "title": "Donda Chant",
      "global_id": "b99b8351-8433-405c-84cf-59d41a4a3638",
      "meta_version": "2",
      "stems_version": "1"
    },
    {
      "id": "T2",
      "artist": "Kanye West",
      "title": "Jail",
      "global_id": "e62a96d3-df00-4462-a448-fa7a6e614a19",
      "meta_version": "1",
      "stems_version": "1"
    },
    {
      "id": "T3",
      "artist": "Kanye West",
      "title": "God Breathed",
      "global_id": "28c1e291-a528-4801-b55b-1ff530001571",
      "meta_version": "1",
      "stems_version": "1"
    },
    {
      "id": "T4",
      "artist": "Kanye West",
      "title": "Off The Grid",
      "global_id": "5e86dd27-9dff-44da-b672-121acae8d2c7",
      "meta_version": "1"
    }
  ]
}
```

Inside each track folder are the sound files for that track and a Track.txt. The sound files typically line up with these stems: 1 - Other, 2 - Vocals, 3 - Bass, 4 - Drums.



TRACK.txt contains all the config data for the song. The colors are in hex. The top color is for the inner part of the slider and the effects menu while the bottom color is for the outer part and the loop / speed menu. It's recommended to not set the colors to #000000 as this will make the LED color black which turns the LEDs off and make the submenus unusable. It's currently unknown what time_ms does, but tempo_bpm allows you to change the BPM of songs. Additionally the "TrackGain_dB" parameter can be added to custom this text file to make songs louder.

```
{
  "TrackColour": [
    "#ff0000",
    "#0000ff"
  ],
  "tempos": [
    {
      "tempo_bpm": 80,
      "time_ms": 0
    }
  ],
  "TrackGain_dB": 5
}
```

REMEMBER TO ALWAYS EJECT THE STEM PLAYER BEFORE UNPLUGGING IT FROM THE COMPUTER

Deleting Donda

There are two methods for deleting Donda and the bonus songs. You can either delete the complete albums or individual songs. Below are the safest ways of doing both. **Note: By doing either of these, you are locking yourself out of updating these songs. You can reverse these changes to update them but they will also re-download all deleted songs.**

Deleting The Whole Album

BEFORE PROCEEDING, MAKE BACKUPS OF AT LEAST THE ALBUM.TXT AND EACH OF THE TRACK.txt FILES IN THE T# SUBFOLDERS SO YOU CAN REVERSE THIS CHANGE LATER. If you want to delete the whole Donda album or all 3 of the bonus tracks, all you need to do is boot the player in disk mode and delete the A1 folder for the bonus tracks and/or A2 for Donda. Then rename all subsequent folders so the numbers go up to the lowest available (ex. If you deleted A1, rename A2 to A1 and A3 to A2). Finally you then need to go into the album.txt in each of the folders you renamed and change the ID to match the new folder name and save it.

```
"id": "A1",  
"artist": "Kanye West",  
"title": "Donda",  
"version": "2",  
"tracks": [  
,
```

To restore the whole album, simply undo the name changes you did and copy back over the txt files you backed up. Then go to the Upload screen and click Update. This will redownload the full albums without you losing your custom songs.

Deleting Specific Songs

Currently, the most user-friendly way of deleting specific songs, while also disabling the Update button that'll just redownload them is by altering the album.txt in the A1 (bonus tracks) and/or A2 (Donda) folders. Boot your player into disk mode, go into the A folder you want to delete songs from and open the album.txt. Then find the title field and add a space at the end of the album name but before the end quotes.

```
{
  "id": "A2",
  "artist": "Kanye West",
  "title": "Donda ",
  "version": "2",
  "tracks": [
```

Save the file, eject the Stem Player and reboot. Now, plug it in normally and go to the upload page. Double click the bottom right corner to get to the debug menu and click Manage. From there, all the songs should be listed and you can safely delete any you no longer want.

LIFE OF THE PARTY [DELETE]
UP FROM THE ASHES [DELETE]
NEVER ABANDON YOUR FAMILY [DELETE]
DONDA CHANT [DELETE]
JAIL [DELETE]
GOD BREATHED [DELETE]
OFF THE GRID [DELETE]
HURRICANE [DELETE]
PRAISE GOD [DELETE]
JONAH [DELETE]
OK OK [DELETE]
JUNYA [DELETE]
BELIEVE WHAT I SAY [DELETE]
24 [DELETE]
REMOTE CONTROL [DELETE]

To restore the deleted songs, go back into the album.txt and remove the space you added at the end of the album name. Then reboot and go to the Upload page and click the Update button. This will re-hide the songs from the manage screen but you can repeat the steps mentioned above to get them back.

Troubleshooting / FAQ

Below are some common questions or issues that have popped up. Please try to check if your issue is here before reaching out to support. You can either contact the community support on Discord at <https://discord.gg/C5n268yxaJ> or the official support by emailing help@stemplayer.com

WHEN TRYING TO UPDATE, IT FAILS BECAUSE OF MY NETWORK

Make sure you have a stable internet connection when updating. If you are sure your connection is good, then your internet might be restricted (ex. college wifi). Try with a VPN if possible.

WHEN I PLUG MY STEM PLAYER IN MY COMPUTER, IT ISN'T RECOGNIZED OR STEMS FAIL TO UPLOAD WITH SOME ERROR

Make sure you are using Chrome or some other Chrome based browser. If so, try a different cable (preferably a known good one). If that doesn't work, try a different USB port. If that still doesn't work, try a different compatible browser (ex. use Edge instead of Chrome). Finally, if you have access to one, try a different computer.

HOW CAN I TELL MY STEM PLAYER IS CHARGING

Before plugging in your Stem Player to charge, make sure it's on. When you plug it in, you will see a row of green lights go by. That confirms it's charging. You can turn off the Stem Player after to allow it to charge a bit faster.

WHEN I PUT MY STEM PLAYER INTO DISK MODE, ALL THE TRACKS ARE WAV FILES. WHY?

Despite the uploader accepting all sorts of different files, the actual Stem Player itself can only play WAV files. It is recommended to always use the highest quality files available to put on your Stem Player to get the most out of the space WAV files take up.

CAN I ADD SONGS TO MY STEM PLAYER USING DISK MODE?

Technically yes, but doing so is really not recommended. To do this properly, you would need to either split your songs using an outside AI to 4 tracks or find a 4 track stem pack, then convert them into WAV files and number them 1-4, then copy them over to a new T folder and make a track.txt file for it and finally update the album.txt to add another song entry so future custom songs uploaded using the Upload page don't fail.

WHAT'S THE BATTERY LIFE / CHARGING TIME?

Unfortunately, there are no real clear numbers on this at the moment. Playback time reports have varied from 2 - 5 hours playback and charge time is a big unknown.

I'M GETTING AN ERROR WHEN TRYING TO UPLOAD NEW SONGS

Try the steps mentioned in the player not being recognized section of the FAQ. If none of those work, unfortunately this likely means your custom songs folder has a critical file messed up (likely album.txt). Unless you feel like spending a lot of time trying to recreate it, your best bet is to go into disk mode and completely delete the A3 folder and start fresh. **YOU DO NOT NEED TO FACTORY RESET!**

I'M HAVING ISSUES PAIRING MY BLUETOOTH HEADPHONES / SPEAKERS

Unfortunately, since all bluetooth speakers can have a wide variety of ways to do pairing, there's not any tips I can give besides making sure you follow your speakers manual on how to put it into pairing mode. Your best bet is to join the Discord and ask if anyone has the same model of speaker as you and if they were able to pair it.

WHY DO MY AI SPLIT STEMS SOUND BAD?

When uploading songs to have the AI split, try to use the highest quality file you have (FLAC, WAV etc). Lower quality files (such as YouTube links or MP3s) might not give the AI enough information to work with.

CAN I UPGRADE MY STORAGE?

Currently there is no feasible way to upgrade storage. The Stem Player uses a soldered 8GB eMMC module for storage which while in theory could be upgraded, it would be a monumental task.